GENERAL NOTES

1. Standard Drawing E 715-BKFL-01, 03, 05 and 07 illustrate the requirements for pipe installations utilizing structure backfill. Standard Drawings E 715-BKFL-02, 04, 06, and 08 illustrate the requirements for pipe installations using flowable mortar backfill.

2. Protective cover shall be constructed prior to running heavy equipment over installed pipes. The minimum covers are listed below:
   a.) 1.5' for Bc $\leq$ 18", where Bc = pipe diameter or span
   b.) 3' for 18" $<$ Bc $\leq$ 54"
   c.) 4' for Bc $>$ 54"

(3) For backfill purposes, paved shoulders, curbs, and sidewalks are considered pavement.

4. Method 1 backfill shall be utilized for all Type 2 or 5 pipe installed parallel to the mainline or public road approaches and within 5'-0 of pavement. Method 2 backfill shall be utilized for such pipe installed outside 5'-0 from pavement.

5. If the existing ground line is less than Vc above the proposed top of pipe elevation, the embankment shall be constructed to at least Vc above the proposed top of pipe elevation prior to pipe installation. Vc = 12" for Bc $\leq$ 18" and Vc = 18" for Bc $>$ 18".

6. In paved median areas, structure backfill shall be utilized instead of compacted earth backfill between the Vc dimension above the pipe and the top of the trench.

(7) Flowable mortar or structure backfill shall be encased by compacted earth backfill. The minimum encasement shall be 2 feet. If necessary, the 2:1 slope between the flowable mortar or structure backfill and the encasement shall be modified to maintain the minimum 2 feet encasement.

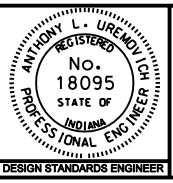
8. Flowable mortar backfill shall be utilized for plastic pipes fabricated of non hydrostatic design basis rated resins and installed at locations where method 1 backfill is required.

INDIANA DEPARTMENT OF TRANSPORTATION

PIPE STRUCTURE BACKFILL

MARCH 2003

STANDARD DRAWING NO. E 715-BKFL-09



DESIGN STANDARDS ENGINEER

/s/ Anthony L. Uremovich 3-03-03
DESIGN STANDARDS ENGINEER DATE

/s/ Richard K. Smutzer 3-03-03
CHIEF HIGHWAY ENGINEER DATE